

# David E Clffel

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

122  
papers

5,662  
citations

42  
h-index

73  
g-index

137  
ext. papers

6,071  
ext. citations

6.5  
avg, IF

5.66  
L-index

#	Paper	IF	Citations
122	Trace Oxygen Affects Osmium Redox Polymer Synthesis for Wired Enzymatic Biosensors. <i>Journal of the Electrochemical Society</i> , <b>2022</b> , 169, 016506	3.9	
121	Layer-by-Layer Assembly of Photosystem I and PEDOT:PSS Biohybrid Films for Photocurrent Generation. <i>Langmuir</i> , <b>2021</b> , 37, 10481-10489	4	3
120	Chlorpyrifos Disrupts Acetylcholine Metabolism Across Model Blood-Brain Barrier. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2021</b> , 9, 622175	5.8	2
119	A bistable, multiport valve enables microformulators creating microclinical analyzers that reveal aberrant glutamate metabolism in astrocytes derived from a tuberous sclerosis patient. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 341, 129972-129972	8.5	3
118	Photosystem I Enhances the Efficiency of a Natural, Gel-Based Dye-Sensitized Solar Cell.. <i>ACS Applied Bio Materials</i> , <b>2020</b> , 3, 4465-4473	4.1	5
117	A low-interference, high-resolution multianalyte electrochemical biosensor. <i>Analytical Methods</i> , <b>2020</b> , 12, 3873-3882	3.2	3
116	Optical and electrochemical tuning of hydrothermally synthesized nitrogen-doped carbon dots. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 3375-3383	5.1	5
115	Photosystem I Multilayers within Porous Indium Tin Oxide Cathodes Enhance Mediated Electron Transfer. <i>ChemElectroChem</i> , <b>2020</b> , 7, 585-585	4.3	0
114	Electron Transfer at Photosystem I - Electrode Interfaces: Porous & Translucent Indium Tin Oxide Cathodes. <i>ECS Meeting Abstracts</i> , <b>2020</b> , MA2020-01, 2526-2526	0	
113	Photosystem I Multilayers within Porous Indium Tin Oxide Cathodes Enhance Mediated Electron Transfer. <i>ChemElectroChem</i> , <b>2020</b> , 7, 596-603	4.3	13
112	Reversing the Thermodynamics of Galvanic Replacement Reactions by Decreasing the Size of Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 19268-19277	16.4	10
111	Improving the stability of photosystem I based bioelectrodes for solar energy conversion. <i>Current Opinion in Electrochemistry</i> , <b>2020</b> , 19, 27-34	7.2	16
110	Fibrotic Encapsulation Is the Dominant Source of Continuous Glucose Monitor Delays. <i>Diabetes</i> , <b>2019</b> , 68, 1892-1901	0.9	5
109	Preface Semiconductor Electrochemistry and Photoelectrochemistry in Honor of Krishnan Rajeshwar. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, Y5-Y6	3.9	2
108	Communication Microfluidic Electrochemical Acetylcholine Detection in the Presence of Chlorpyrifos. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, G178-G181	3.9	1
107	Photosystem I Multilayer Films for Photovoltage Enhancement in Natural Dye-Sensitized Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 301-305	6.1	11
106	Electrochemical Microphysiometry Detects Cellular Glutamate Uptake. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, G3120-G3124	3.9	7

105	An Electrochemical Reaction-Diffusion Model of the Photocatalytic Effect of Photosystem I Multilayer Films. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 117-125	3.4	18
104	Polyviologen as Electron Transport Material in Photosystem I-Based Biophotovoltaic Cells. <i>Langmuir</i> , <b>2018</b> , 34, 15658-15664	4	14
103	Multianalyte Physiological Microanalytical Devices. <i>Annual Review of Analytical Chemistry</i> , <b>2017</b> , 10, 93-111.5	3	
102	Small gold nanoparticles presenting linear and looped Cilengitide analogues as radiosensitizers of cells expressing $\beta$ integrin. <i>Journal of Nanoparticle Research</i> , <b>2017</b> , 19, 1	2.3	3
101	Mediated approaches to Photosystem I-based biophotovoltaics. <i>Current Opinion in Electrochemistry</i> , <b>2017</b> , 5, 211-217	7.2	24
100	Elucidation of the Role of Lectin-Like oxLDL Receptor-1 in the Metabolic Responses of Macrophages to Human oxLDL. <i>Journal of Lipids</i> , <b>2017</b> , 2017, 8479482	2.7	6
99	Instrumenting a Fetal Membrane on a Chip as Emerging Technology for Preterm Birth Research. <i>Current Pharmaceutical Design</i> , <b>2017</b> , 23, 6115-6124	3.3	17
98	Analysis of a Nitroreductase-Based Hypoxia Sensor in Primary Neuronal Cultures. <i>ACS Chemical Neuroscience</i> , <b>2016</b> , 7, 1188-91	5.7	8
97	Organs-on-Chips as Bridges for Predictive Toxicology. <i>Applied in Vitro Toxicology</i> , <b>2016</b> , 2, 97-102	1.3	20
96	Prostaglandin E2 Regulation of Macrophage Innate Immunity. <i>Chemical Research in Toxicology</i> , <b>2016</b> , 29, 19-25	4	5
95	Scanning Electrochemical Microscopy of Individual Pancreatic Islets. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, H3077-H3082	3.9	5
94	Effect of Cross-linking on the Performance and Stability of Photocatalytic Photosystem I Films. <i>Electrochimica Acta</i> , <b>2016</b> , 222, 926-932	6.7	14
93	IL4 receptor $\beta$ mediates enhanced glucose and glutamine metabolism to support breast cancer growth. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , <b>2015</b> , 1853, 1219-28	4.9	35
92	Real-Time Monitoring of Cellular Bioenergetics with a Multianalyte Screen-Printed Electrode. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 7857-64	7.8	23
91	Electrochemical preparation of Photosystem I-polyaniline composite films for biohybrid solar energy conversion. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 9328-35	9.5	44
90	Effect of Ligand Charge on Electron-Transfer Rates of Water-Soluble Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 11296-11300	3.8	4
89	Photosystem I-polyaniline/TiO <sub>2</sub> solid-state solar cells: simple devices for biohybrid solar energy conversion. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 3572-3576	35.4	66
88	Construction of a Semiconductor-Biological Interface for Solar Energy Conversion: p-Doped Silicon/Photosystem I/Zinc Oxide. <i>Langmuir</i> , <b>2015</b> , 31, 10002-7	4	19

87	Surface adsorption and electrochemical reduction of 2,4,6-trinitrotoluene on vanadium dioxide. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 334-7	7.8	29
86	Carbon-supported AuPt and AuPd bimetallic nanocomposites as formic acid electrooxidation catalysts. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2015</b> , 212, 2903-2909	1.6	3
85	Electrochemical Detection of 2,4,6-Trinitrotoluene at Colloidal Gold Nanoparticle Film Assemblies. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , <b>2015</b> , 147-160	0.1	1
84	Integration of Photosystem I with Graphene Oxide for Photocurrent Enhancement. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301953	21.8	31
83	Multichamber Multipotentiostat System for Cellular Microphysiometry. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 204, 536-543	8.5	14
82	Photoactive films of photosystem I on transparent reduced graphene oxide electrodes. <i>Langmuir</i> , <b>2014</b> , 30, 8990-4	4	34
81	Photosystem I protein films at electrode surfaces for solar energy conversion. <i>Langmuir</i> , <b>2014</b> , 30, 10990-10014	4	49
80	Room-temperature reactions for self-cleaning molecular nanosensors. <i>Nano Letters</i> , <b>2013</b> , 13, 798-802	11.5	18
79	Engineering challenges for instrumenting and controlling integrated organ-on-chip systems. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2013</b> , 60, 682-90	5	130
78	<i>Pueraria lobata</i> (Kudzu) Photosystem I Improves the Photoelectrochemical Performance of Silicon. <i>Industrial Biotechnology</i> , <b>2013</b> , 9, 37-41	1.3	4
77	Neurovascular unit on a chip: implications for translational applications. <i>Stem Cell Research and Therapy</i> , <b>2013</b> , 4 Suppl 1, S18	8.3	48
76	Multianalyte microphysiometry reveals changes in cellular bioenergetics upon exposure to fluorescent dyes. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 11677-80	7.8	12
75	Application of multianalyte microphysiometry to characterize macrophage metabolic responses to oxidized LDL and effects of an apoA-1 mimetic. <i>Biochemical and Biophysical Research Communications</i> , <b>2013</b> , 431, 181-5	3.4	8
74	Photosystem I on graphene as a highly transparent, photoactive electrode. <i>Langmuir</i> , <b>2013</b> , 29, 4177-80	4	68
73	In vivo toxicity, biodistribution, and clearance of glutathione-coated gold nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2013</b> , 9, 257-63	6	144
72	Multianalyte Microphysiometry of Macrophage Responses to Phorbol Myristate Acetate, Lipopolysaccharide, and Lipoarabinomannan. <i>Electroanalysis</i> , <b>2013</b> , 25, 1706-1712	3	8
71	Effect of Redox Mediator on the Photo-Induced Current of a Photosystem I Modified Electrode. <i>Journal of the Electrochemical Society</i> , <b>2013</b> , 160, H315-H320	3.9	24
70	In vivo testing for gold nanoparticle toxicity. <i>Methods in Molecular Biology</i> , <b>2013</b> , 1026, 175-86	1.4	5

69	A printed superoxide dismutase coated electrode for the study of macrophage oxidative burst. <i>Biosensors and Bioelectronics</i> , <b>2012</b> , 33, 128-33	11.8	13
68	Real-time Recognition of Mycobacterium tuberculosis and Lipoarabinomannan using the Quartz Crystal Microbalance. <i>Sensors and Actuators B: Chemical</i> , <b>2012</b> , 174, 245-252	8.5	15
67	Metabolic impact of 4-hydroxynonenal on macrophage-like RAW 264.7 function and activation. <i>Chemical Research in Toxicology</i> , <b>2012</b> , 25, 1643-51	4	17
66	Enhanced photocurrents of photosystem I films on p-doped silicon. <i>Advanced Materials</i> , <b>2012</b> , 24, 5959-624	6.4	90
65	Photosystem I in Langmuir-Blodgett and Langmuir-Schaefer monolayers. <i>Langmuir</i> , <b>2012</b> , 28, 15080-6	4	22
64	Ag <sub>44</sub> (SR) <sub>30</sub> (4 <sup>-</sup> ): a silver-thiolate superatom complex. <i>Nanoscale</i> , <b>2012</b> , 4, 4269-74	7.7	138
63	Metabolic multianalyte microphysiometry reveals extracellular acidosis is an essential mediator of neuronal preconditioning. <i>ACS Chemical Neuroscience</i> , <b>2012</b> , 3, 510-8	5.7	17
62	Electrochemical sensors and biosensors. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 685-707	7.8	622
61	Photoreduction of catalytic platinum particles using immobilized multilayers of Photosystem I. <i>Langmuir</i> , <b>2012</b> , 28, 7952-6	4	24
60	Biomimetic monolayer-protected gold nanoparticles for immunorecognition. <i>Nanoscale</i> , <b>2012</b> , 4, 3843-51	7.7	20
59	Kinetic model of the photocatalytic effect of a Photosystem I monolayer on a planar electrode surface. <i>Journal of Physical Chemistry A</i> , <b>2011</b> , 115, 3326-34	2.8	26
58	Short-chain PEG mixed monolayer protected gold clusters increase clearance and red blood cell counts. <i>ACS Nano</i> , <b>2011</b> , 5, 3577-84	16.7	97
57	Ionization-enhanced decomposition of 2,4,6-trinitrotoluene (TNT) molecules. <i>Journal of Physical Chemistry A</i> , <b>2011</b> , 115, 8142-6	2.8	11
56	Modeling the measurements of cellular fluxes in microbioreactor devices using thin enzyme electrodes. <i>Journal of Mathematical Chemistry</i> , <b>2011</b> , 49, 251-275	2.1	13
55	Multifunctional nanoparticles as simulants for a gravimetric immunoassay. <i>Analytical and Bioanalytical Chemistry</i> , <b>2011</b> , 399, 1021-9	4.4	14
54	Nanoscale Phase Segregation of Mixed Thiolates on Gold Nanoparticles. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 10742-10747	3.6	9
53	Nanoscale phase segregation of mixed thiolates on gold nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 10554-9	16.4	68
52	The effects of cholera toxin on cellular energy metabolism. <i>Toxins</i> , <b>2010</b> , 2, 632-48	4.9	19

51	Characterization of thiolate-protected gold nanoparticles by mass spectrometry. <i>Analyst, The</i> , <b>2010</b> , 135, 868-74	5	83
50	Tiopronin gold nanoparticle precursor forms aurophilic ring tetramer. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 10858-66	5.8	42
49	Surface fragmentation of complexes from thiolate protected gold nanoparticles by ion mobility-mass spectrometry. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 3061-6	7.8	48
48	Neuron specific metabolic adaptations following multi-day exposures to oxygen glucose deprivation. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , <b>2010</b> , 1802, 1095-104	6.9	27
47	Unexpected toxicity of monolayer protected gold clusters eliminated by PEG-thiol place exchange reactions. <i>Chemical Research in Toxicology</i> , <b>2010</b> , 23, 1608-16	4	55
46	A structural mass spectrometry strategy for the relative quantitation of ligands on mixed monolayer-protected gold nanoparticles. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 9268-74	7.8	34
45	Enhanced Photocurrent Production by Photosystem I Multilayer Assemblies. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 4048-4054	15.6	108
44	Photosystem I - based biohybrid photoelectrochemical cells. <i>Bioresource Technology</i> , <b>2010</b> , 101, 3047-53	11	103
43	Metabolic discrimination of select list agents by monitoring cellular responses in a multianalyte microphysiometer. <i>Sensors</i> , <b>2009</b> , 9, 2117-33	3.8	40
42	The role of transforming growth factor-beta-mediated tumor-stroma interactions in prostate cancer progression: an integrative approach. <i>Cancer Research</i> , <b>2009</b> , 69, 7111-20	10.1	51
41	Nanoparticle-based biologic mimetics. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , <b>2009</b> , 1, 47-59	9.2	18
40	Glucose and lactate biosensors for scanning electrochemical microscopy imaging of single live cells. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 2717-27	7.8	77
39	Functionalized nanoporous gold leaf electrode films for the immobilization of photosystem I. <i>ACS Nano</i> , <b>2008</b> , 2, 2465-72	16.7	153
38	Rapid assembly of photosystem I monolayers on gold electrodes. <i>Langmuir</i> , <b>2008</b> , 24, 8409-12	4	88
37	Electrochemical Impedance Spectroscopy of Synthetic Pyrite Doped with As, Co, and Ni. <i>Journal of the Electrochemical Society</i> , <b>2008</b> , 155, P61	3.9	19
36	Design and synthesis of an antigenic mimic of the Ebola glycoprotein. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 3161-3168	2.5	2
35	A multiwalled carbon nanotube/dihydropyran composite film electrode for insulin detection in a microphysiometer chamber. <i>Analytica Chimica Acta</i> , <b>2008</b> , 609, 44-52	6.6	48
34	Chemical and electrochemical oxidation of C8-arylamine adducts of 2' deoxyguanosine. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 2074-81	16.4	22

33	Electrospray mass spectrometry study of tiopronin monolayer-protected gold nanoclusters. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 1095-104	16.4	68
32	Mercury-Free Analysis of Lead in Drinking Water by Anodic Stripping Square Wave Voltammetry. <i>Journal of Chemical Education</i> , <b>2007</b> , 84, 312	2.4	4
31	Electrochemistry and photoelectrochemistry of photosystem I adsorbed on hydroxyl-terminated monolayers. <i>Journal of Electroanalytical Chemistry</i> , <b>2007</b> , 599, 72-78	4.1	68
30	Output analysis of materials inkjet printer. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 113114	3.4	13
29	The effect of As, Co, and Ni impurities on pyrite oxidation kinetics: An electrochemical study of synthetic pyrite. <i>Geochimica Et Cosmochimica Acta</i> , <b>2007</b> , 71, 2491-2509	5.5	66
28	Detection of Ebola virus envelope using monoclonal and polyclonal antibodies in ELISA, surface plasmon resonance and a quartz crystal microbalance immunosensor. <i>Journal of Virological Methods</i> , <b>2006</b> , 137, 219-28	2.6	42
27	Epitope mapping of the protective antigen of B. anthracis by using nanoclusters presenting conformational peptide epitopes. <i>Angewandte Chemie - International Edition</i> , <b>2006</b> , 45, 594-8	16.4	21
26	Epitope Mapping of the Protective Antigen of B. Anthracis by Using Nanoclusters Presenting Conformational Peptide Epitopes. <i>Angewandte Chemie</i> , <b>2006</b> , 118, 608-612	3.6	3
25	Imaging of voltage-gated alamethicin pores in a reconstituted bilayer lipid membrane via scanning electrochemical microscopy. <i>Analyst, The</i> , <b>2006</b> , 131, 311-6	5	21
24	Scanning electrochemical microscopy determination of organic soluble MPC electron-transfer rates. <i>Langmuir</i> , <b>2006</b> , 22, 10307-14	4	24
23	Entrapment of photosystem I within self-assembled films. <i>Langmuir</i> , <b>2006</b> , 22, 8114-20	4	43
22	Multianalyte microphysiometry as a tool in metabolomics and systems biology. <i>Journal of Electroanalytical Chemistry</i> , <b>2006</b> , 587, 333-339	4.1	60
21	Continuous free-flow electrophoresis of water-soluble monolayer-protected clusters. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 4348-53	7.8	25
20	Hemagglutinin linear epitope presentation on monolayer-protected clusters elicits strong antibody binding. <i>Biomacromolecules</i> , <b>2005</b> , 6, 3419-24	6.9	23
19	Quartz crystal microbalance detection of glutathione-protected nanoclusters using antibody recognition. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 304-10	7.8	61
18	Photosystem I patterning imaged by scanning electrochemical microscopy. <i>Langmuir</i> , <b>2005</b> , 21, 692-8	4	36
17	Real-time cell dynamics with a multianalyte physiometer. <i>Methods in Molecular Biology</i> , <b>2005</b> , 303, 209-23.4		11
16	NanoLiterBioReactor: Monitoring of Long-Term Mammalian Cell Physiology at Nanofabricated Scale. <i>Materials Research Society Symposia Proceedings</i> , <b>2004</b> , 823, W9.5.1/O5.5.1		



15	NanoLiterBioReactor: Monitoring of Long-Term Mammalian Cell Physiology at Nanofabricated Scale. <i>Materials Research Society Symposia Proceedings</i> , <b>2004</b> , 820, 126		
14	NanoLiterBioReactor: long-term mammalian cell culture at nanofabricated scale. <i>Biomedical Microdevices</i> , <b>2004</b> , 6, 325-39	3.7	86
13	Synthesis and catalytic properties of soluble platinum nanoparticles protected by a thiol monolayer. <i>Langmuir</i> , <b>2004</b> , 20, 6012-8	4	109
12	Effect of surface composition on the adsorption of photosystem I onto alkanethiolate self-assembled monolayers on gold. <i>Langmuir</i> , <b>2004</b> , 20, 4033-8	4	64
11	A microphysiometer for simultaneous measurement of changes in extracellular glucose, lactate, oxygen, and acidification rate. <i>Analytical Chemistry</i> , <b>2004</b> , 76, 519-27	7.8	88
10	Modification of the Cytosensor[μ]microphysiometer to simultaneously measure extracellular acidification and oxygen consumption rates. <i>Analytica Chimica Acta</i> , <b>2003</b> , 496, 93-101	6.6	47
9	A PtRu/Graphitic Carbon Nanofiber Nanocomposite Exhibiting High Relative Performance as a Direct-Methanol Fuel Cell Anode Catalyst. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 8097-8101	3.4	328
8	Mercaptoammonium-Monolayer-Protected, Water-Soluble Gold, Silver, and Palladium Clusters. <i>Langmuir</i> , <b>2000</b> , 16, 9699-9702	4	162
7	Electronic Conductivity of Solid-State, Mixed-Valent, Monolayer-Protected Au Clusters. <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 11465-11472	16.4	257
6	Redox and Fluorophore Functionalization of Water-Soluble, Tiopronin-Protected Gold Clusters. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 7081-7089	16.4	276
5	Electrochemistry of tert-Butylcalix[8]arene-C(60) Films Using a Scanning Electrochemical Microscope-Quartz Crystal Microbalance. <i>Analytical Chemistry</i> , <b>1998</b> , 70, 4146-51	7.8	37
4	Scanning electrochemical microscopy. 36. A combined scanning electrochemical microscope-quartz crystal microbalance instrument for studying thin films. <i>Analytical Chemistry</i> , <b>1998</b> , 70, 1993-8	7.8	32
3	Scanning Electrochemical Microscopy. 37. Light Emission by Electrogenenerated Chemiluminescence at SECM Tips and Their Application to Scanning Optical Microscopy. <i>Analytical Chemistry</i> , <b>1998</b> , 70, 2941-2948	7.8	85
2	Electrochemistry of fullerene films. <i>Thin Solid Films</i> , <b>1995</b> , 257, 166-184	2.2	138
1	Electrochemical Studies of the Protonation of C60- and C602-. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 8140-8143		56